

A Treatise in Architecture Beauty *

مداخلة في الجمال المعماري

Dr. Wagih Fawzi Youssef

أ.د/ وجيه فوزي يوسف

أستاذ غير متفرغ بكلية الهندسة بشبرا

Although the primary purpose of architecture has never been to please, I claim that a building is only beautiful when it satisfies a need. So in order for buildings to be judged aesthetically we have to refer to their origins, and to the rules in force when they were built, a theory of relatively which has been of the utmost influence in the history of modern thought. So it is fair to say that architectural beauty was formerly regarded on the authority of Vitruvius, as a matter essentially of proportion related absolutely to a harmonious system of abstract mathematical intervals, and related analogically to the proportion of man.

This interpretation was accepted by Addison who like Vitruvius attributed beauty to the symmetry and proportion of parts. But the philosophers like Edmund Burke rejected this theory and claimed that neither proportion nor utility had anything to do with beauty and according to him beauty result from such qualities as smallness, smoothness and delicacy. Addison on the other hand saw proportion as an expression of the idea of fitness and is based on the association existing between the dimensions of a structural element and the material resistance to the load. What he means is that proportion is merely fitness for the ends of stability and support.

Locke considers the eye as the most perfect medium to judge the beauty of a building since the mind not only receives most of its ideas by the sight, but retains, alters and compounds these images into all the varieties of picture and vision which are most agreeable to the imagination.

About this imagination Addison stated that novelty is one of the three primary sources of pleasure for the imagination and that is operated by gratifying curiosity and filling the soul with an agreeable surprise.

Kant rejected the idea that beauty is derived from the earthy experience of the senses, he said that it is far beyond that, for if architecture would be without purpose, it could be assigned to the category of free beauty. In that case, beauty is not produced by the spatial content, as Hegel would later propound, nor by its substantial mass, but in essence by its delineation.

Hegel posited an aesthetical theory governed by the Judgment of form as expression of content. According to him architecture is the presentation of an idea. It is the outward symbol of a metaphysical content developing in time, and this content is spirit. History of architecture is a development in time of this idea of spirit, and simultaneously of the material means of its expression. It is the concentration of essential soul life which thus encloses itself in spatial relations. Thus Hegel's aesthetic was constructed upon the medium. The concept of substance was considered a negative force, which had to be reduced to the extreme thus eliminating between form and idea.

The vision of Schopenhauer, was different, he was concerned with the conflict between gravity and rigidity and considered them the sole aesthetic material of architecture, its problem is to make this conflict appear with perfection, distinctness in a multiple of different ways. For Schopenhauer the constant theme of architecture is support and burden, and its fundamental law is that no burden shall be without sufficient support and no support without a suitable burden. Thus he disagreed with cantilevers, in which the element of support was invisible and with the smooth transition of the Gothic rib Vault with the pier, in which case the element of burden was not tectonically expressed.

Beauty of architecture is regarded by John Wood as that sort of object which gives delight to the mind, and must consist of variety, though at the same time conceived as one individual. Variety is one of the most natural and pleasing objects to the mind, but Amidst that pleasing diversity, unity is likewise a predominant cause of pleasure, without which, variety is ambiguous and indistinct, unity therefore fixes diversity and reunites in itself all the several objects, which before were loose and unconfined in the mind, in the same manner that the eyes draws all objects to one point in the multitude of the objects which perpetually offer themselves to the mind, The several resemblances are drawn together and classed with regularity and proportion. Variety therefore tempered by unity, regularity and proportion, produces beauty, and this harmony is by no means the effect of caprice, these characters of beauty exist in nature and are founded upon everlasting truth.

Like John Wood, Ruskin saw beauty as nothing else than imitation of nature. When forms are not taken from nature they must be ugly. All rules concerning the right place, position and colour of ornaments are somewhere represented in the natural creation around the observer, The eye, for instance is far more important to him than the ear. He is absolutely silent about the tactile senses to which man's movements on the horizontal plane belong. Ruskin solely discusses the visual treatment of the vertical plane. According to Ruskin beauty in architecture is the unnecessary purposeless ornamentation of the vertical plane of building mass.

Ruskin pays profound attention to the architectural categories of mass and line. these categories he derives from nature. Mass symbolizes the plains and rocks, line the woods. He is interested only in the visual effect and not in real form. Sculpture is not the mere cutting of the form of anything in stone, it is the cutting of the effect of it. He never goes beyond the impression upon the retina of the eye. Ruskin experiences architecture as if it were painting. In his seven lamps of architecture there is a frequent use of a notion of space, but solely in the meaning of two dimensional availability of surface, potentially to be occupied by his three categories of matter, shadow and colour. When he explains the correct treatment of beauty, he only deals with the concept of proportion and symmetry, proportion is associated with vertical division and symmetry with horizontal division.

Vischer identifies beauty with the good and the true, Like Ruskin, Vischer neglects the idea of space, He only pays attention to the exterior surface.

Violet Le Dux saw truth in architecture as not sufficient to render a work excellent, it is necessary to give to truth a beautiful or at least appropriate form. In spite of this he says that although we make use of the most rigorous and logical reasoning we often continue to produce what is ugly. For if having only brick and wood we simulate a structure of stone or marble, by means of stucco and paint; we make a very sorry use of art.

August Endell has said that painters have taught us a great deal, but their primary aim has always been colour, and where they were concerned with form they mainly searched for the conceptual quality by the exact reproduction of the object, and not the aesthetic quality. Indeed effort (tension) and speed (Tempo) are the two constituent parts of all feelings. Apathy results in us from everything which is too weak or too strong, too slow or too fast for our endurance and because all sensations are only tempo and tension, form is able to awaken all shades of emotion within us. All forms are basically only modifications and combinations of the straight line.

Francis Bacon the English empiricist denies the beauty of geometrical proportion and maintained that the painter creates a beautiful face by a kind of felicity and not by rule.

Hume, said that all ideas are derived from impressions, that our ideas are ordered by a principle of association rather than reasoning and logic, and that beauty simply consists in giving pleasure and satisfaction to the soul. For Hume beauty and deformity are not qualities in objects but belong entirely to the sentiment. Each mind perceives a different beauty. To seek the real beauty or real deformity is a fruitless and inquiry as to pretend to ascertain the real sweet or real bitter.

Edmund Burke, insisted in the central function of sense perception for the formation of our ideas and he argued

that god taste depends upon sensibility. By beauty he means that quality or those qualities in bodies by which they cause love or some passion similar to it. The qualities he associates with beauty are smallness, smoothness, gradual variations in contrast to angularity delicacy without any remarkable appearance of strength and colour clear and bright, but not very strong and glaring. Smoothness is beautiful because the sense of feeling is highly gratified with smooth bodies. From the stand point of this sensorial psychology Burke had to deny that beauty has anything to do with calculation and geometry. Proportion is according to him, solely a matter of mathematical inquiry, indifferent to the mind, and without interest to the imagination. He is furious about the absurdity of the classical concept of beauty that had its roots in the idea of an all pervading mathematical order.

Hogarth argues that sense perception proves that the established devices of uniformity, regularity and symmetry have as little to do with beauty as all the mathematical schemes and the strange notion of division governed by the laws of music, Experience shows that beauty grace and elegance or expressed by undulating forms. The eye he says, enjoys winding walks and serpentine rivers and all sort of objects whose forms are composed principally of what I call the waving and serpentine line. He talks of the beauty of a composed intricacy of form and the pleasing kind of horror or feelings of admiration and veneration produced by vastness of wide ocean, high grown trees, great buildings and palaces.

Sir William chambers on the other hand rejected the analogue between proportion in visible objects and music replaced it by an empirical and subjective approach to proportion derived from the theory of association. He maintained that the beauty which depends on the association of ideas creates the most powerful impression.

In fact proportion is general and universal in all the things given to measure weight and numbers known to us in music are the audible manifestation of universal harmony.

Lord Shaftesbury even maintained that musical proportions are effective also in human nature. The same numbers, harmony and proportions have place in morals and are discoverable in the characters and affections of mankind.

Alberti's mathematical definition of beauty derived from Vitruvius, and especially aimed at architecture was never called in question. Beauty he defines as the harmony and concord of all the parts achieved in such a manner that nothing could be added or taken away or altered except for the worse. The natural concomitants of this kind of beauty are symmetry, regularity and uniformity.

St. Augustine calls beauty as the splendor of truth. He gave advices to teach beauty to the students of architecture. First, to train the student, to draw to train his eyes and hand. Second, give the student a feeling for the expression of and relationship between form, proportion, structure and materials and construction of simple wood, stone and brick buildings and then the structural possibilities of steel and concrete in such a way that the significant relationship between the materials, the constructions, and the architectural expression is made apparent. The knowledge of materials and construction leads to a study of function. The function of the principal kinds of buildings are studied on the basis of exacts analysis. After the essential of each problem have been clearly established, buildings are designed whose conception an expression are based on these essentials.

In conjunction with the curriculum, there is a clarification of the cultural situation today so that the student may learn to recognize the sustaining and the compelling forces of his time and to comprehend the intellectual and spiritual environment in which he lives. The buildings of the past are studied so that students will acquire from their significance and greatness a sense for genuine architectural values and because their dependence upon specific historical situation must awake in him an understanding for the necessity of his own architectural achievement.

I believe that by training the eye and sense of design and foster aesthetic appreciation in the world of proportions, forms, colours, texture and spaces, we can possess architecture tradition from which will come significant Egyptian architects.
